



US EPA RECORDS CENTER REGION 5



471026

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IMPORTANT FAX INFORMATION

Please deliver to: CARL MALSONCompany: W.W. ENGINEERINGFAX No. (616) 942-6499No. of pages, including cover 10

Message: PLEASE FIND ENCLOSED A COPY OF
THE PRODUCTION SHEETS FOR ED PUCKI
FOR OCT. 21 THRU OCT. 23.

Time: _____ a.m.
p.m.Sent By: BOB KROKOW

Date: _____

If all the pages are not received, please contact _____



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~204~~ 204/146 Boring #: L-F-1
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCarthy/Pucci
 R&R Rep : _____ Date : 10-21-92 Drill Bromley / Krakow
 Client Rep : Don Johnson - WWES Rig #: CME 750 / CME 75A Joe M. b.e.

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea. /				Start <u>7:00</u>
Augering, 4-1/4" H.S.A. (No Samples)	ft. /				6:00
Augering, 8-1/4" H.S.A. (No Samples)	ft. /				7:00 <u>head supplies</u>
Augering, 4-1/4 H.S.A. w/ 2.5' and 5' c/c S.S. Samples	ft. /				8:00 <u>Travel</u>
Augering, 4-1/4 H.S.A. w/ cont. S.S. Samples	36 /	→	36'		9:00
Augering, 8-1/4 H.S.A. w/ cont. S.S. Samples	ft. /				10:00
Split Spoon Samples (3")	18 /	→	18'		11:00
Shelby tubes, 3" Dia.	ea. /				12:00 <u>unlabeled samples</u>
Sample Jars	dz. /				LUNCH
Coring, NX or NXWL	ft. /				From <u>1:00</u> to <u>1:30</u>
Air Rotary, 5-7/8" bit (No Sample)	ft. /				<u>McCarthy</u> <u>Johnson Augers</u>
Packer Testing	hr. /			<u>Standby</u>	2:00 <u>Move to L-F-1</u>
Wooden Boxes, NX or NXWL	ea. /				3:00 <u>Start Drill</u>
Vertical Groundwater Sampling through 4.25" H.S.A.	ea. /				4:00
Vertical Groundwater Sampling through Bedrock corehole	ea. /				5:00
Reaming: NX to 5-7/8	ft. /				6:00
Rig and Equipment Decontamination	ea. /				End <u>6:25</u>

**DAILY PRODUCTION RECORDS**

Project Well Installation No : ~~004146~~ Boring #: LF-1
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : _____ Date : 10-21-92 Drill Bromley / Krukow
Client Rep : Don Johnson - WWES Rig #: CME 750 / CME 75A Joe M. Ke

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development	hr.	/	/		
4" Protective Casing with 3'x3' x 4" Pad	ea.	/	/		
6 Ft. Steel Post, 2"x2" Drilled & Concrete Set	ea.	/	/		
Screen: 2" PVC, SCH 40 (Installed 10' Screen)	ea.	/	/		
Screen: 2" PVC, SCH 40 (Installed 5' Screen)	ea.	/	/		
Screen: 2" PVC, SCH 40 (3 ft. long material only)	ea.	/	/		
Riser: 2" PVC, SCH 40 (material only)	ft.	/	/		
Riser: 2" PVC, SCH 40 (Installed)	ft.	/	/		
Locking Caps : 2" PVC, SCH 40 (Includes Master Lock)	ea.	/	/		
Riser: 6" PVC, SCH 80 (Installed)	ft.	/	/		
Backfill: 4-1/4" H.S.A. Grout in well annulus (Cement & powdered bentonite)	ft.	/	/		
Backfill: Bedrock Wells Grout in well annulus (Cement & powdered bentonite)	ft.	/	/		
Well Abandonment (Cement & powdered bentonite)	ft.	/	/		
Boring Abandonment (Cement & powdered bentonite)	ft.	/	/		
Sand (80 lbs) (In overburden wells)	ft.	/	/		
Sand (80 lbs) (In Bedrock Wells)	ft.	/	/		
Sand (80 lbs) (Material Only)	bag	/	/		



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~30446~~ 00446 Boring #: LF-1
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
 R&R Rep : _____ Date : 10-21-92 Drill Bromley / Krukow
 Client Rep : Jim Johnson - WWES Rig #: CME 750 / CME 75A Joe M. He

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail /				
Out of Town Charges	days /				
17H 55 Gallon Drums	ea. /				
Standby Time	hr. /				

Comments : _____



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: LF-1
 Client WW ENGINEERING Loc : Albion, Michigan Driller McCurdy / Pucci
 R&R Rep : Date : 10-22-72 Drill Bromley / Krukow
 Client Rep : John Johnson - WWES Rig #: CME 750 / CME 75A M. K. Joe

DESCRIPTION	UNITS	Level C	COMMENTS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea. /			Start 7:00
Augering, 4-1/4" H.S.A. (No Samples)	ft. /			6:00
Augering, 8-1/4" H.S.A. (No Samples)	ft. /			7:00
Augering, 4-1/4" H.S.A. w/ 2.5' and 5' c/c S.S. Samples	ft. /			8:00
Augering, 4-1/4" H.S.A. w/ cont. S.S. Samples	ft. /		Setting well 1.5	9:00
Augering, 8-1/4" H.S.A. w/ cont. S.S. Samples	ft. /		Portland →	10:00
Split Spoon Samples (3')	ca. 5			11:00
Shelby tubes, 3" Dia.	ca. /			12:00
Sample Jars	dz. /			LUNCH
Coring, NX or NXWL	ft. /			From 1:00 to 1:00
Air Rotary, 5-7/8" bit (No Sample)	ft. /		1 hr. →	2:00
Packer Testing	hr. /		1 hr. →	2:30
Wooden Boxes, NX or NXWL	ca. /		START DRILL	3:00
Vertical Groundwater Sampling through 4 1/2" H.S.A.	ca. /			4:00
Vertical Groundwater Sampling through Bedrock corehole	ca. /			5:00
Reaming, NX to 5-7/8	ft. /			6:00
Rig and Equipment Decontamination	ea. /			End



MW-1-SG

DAILY PRODUCTION RECORDS

Project Well Installation No : 004146 Boring #: L.P.-1
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
 R&R Rep : _____ Date : 10-22-92 Drill Bromley / Krukow
 Client Rep : Don Johnson Rig #: CME 750 / CME 75A Don Mike

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development	hr.				
4" Protective Casing with 3'x3' x 4' Pad	ea.				
6 Ft Steel Post, 2"x2" Drilled & Concrete Set	ea.				
Screen: 2" PVC, SCH 40 (Installed 10' Screen)	ea.				
Screen: 2" PVC, SCH 40 (Installed 5' Screen)	ea.				
Screen: 2" PVC, SCH 40 (3 ft long material only)	ea.				
Riser: 2" PVC, SCH 40 (material only)	ft.				
Riser: 2" PVC, SCH 40 (Installed)	ea.				
Locking Caps: 2" PVC, SCH 40 (Includes Master Lock)	ea.				
Riser: 6" PVC, SCH 80 (Installed)	ft.				
Backfill: 4-1/4" H.S.A. Grout in well annulus (Cement & powdered bentonite)	ft.				
Backfill: Bedrock Wells Grout in well annulus (Cement & powdered bentonite)	ft.				
Well Abandonment (Cement & powdered bentonite)	ft.				
Boring Abandonment (Cement & powdered bentonite)	ft.				
Sand (80 lbs) <u>13'</u> (In overburden wells)	ft.				
Sand (80 lbs) (In Bedrock Wells)	ft.				
Sand (80 lbs) <u>9</u> (Material Only)	bag				



MW-1-5G

DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ Boring #: 2F-1
 Client WW ENGINEERING Loc : Aldion, Michigan Drill McCurdy Pucci
 R&R Rep : Don Johnson Date : 10-22-92 Drill Bromley / Krukow
 Client Rep : Don Johnson Rig #: CME 750 / EME 75A Dec M. Ke

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail				
<u>Hole Plug</u>	<u>2</u>	<u>Bag</u>			
Out of Town Charges	days				
17H 55 Gallon Drums	ea.				
Standby Time	hr.				

Comments: water hauling I

2.5 hrs. setting well's
9 Bags Portland



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~22~~ 001146 Boring #: MW-1-SG
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
 R&R Rep : _____ Date : 10-23-92 Drill Bromley / Krukow
 Client Rep : _____ Rig #: CME 750 / CME 75A Joe M. Ke

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea.	/	/		Start <u>7:30</u>
Augering, 4-1/4" H.S.A. (No Samples)	ft.	/	/		6:00
Augering, 8-1/4" H.S.A. (No Samples)	ft.	/	/		7:00
Augering, 4-1/4" H.S.A. w/ 2.5' and 5' c/c S.S. Samples	ft.	/	/		8:00 <u>Move Ahm Grou</u>
Augering, 4-1/4" H.S.A. w/ cont. S.S. Samples	ft.	/	/		8:20 <u>Water Sampling</u>
Augering, 8-1/4" H.S.A. w/ cont. S.S. Samples	ft.	/	/		9:00 <u>Grout. & MW</u>
Split Spoon Samples (3")	ea.	/	/		10:00 <u>3X3 Pad on F</u>
Shelby tubes, 3" Dia.	ea.	/	/		11:00 <u>MW-1 SG</u>
Sample Jars	dz.	/	/		11:30 <u>Decon</u>
Coring, NX or NXWL	ft.	/	/		LUNCH From <u>12:00</u> To <u>12:30</u>
Air Rotary, 5-7/8" bit (No Sample)	ft.	/	/		12:30 <u>Takeover For</u>
Packer Testing	hr.	/	/		<u>McCurdy</u> → <u>12:30</u> <u>MW-1</u>
Wooden Boxes, NX or NXWL	ea.	/	/		<u>Grout Develop</u>
Vertical Groundwater Sampling through 1.25" H.S.A.	ea.	/	/		2:00 <u>Decon Pump</u>
Vertical Groundwater Sampling through Bedrock corehole	ea.	/	/		2:15 <u>Develop MW-1</u>
Reaming: NX to 5-7/8	ft.	/	/		3:00
Rig and Equipment Decontamination	ea.	/	/		4:00
					5:00
					6:00 <u>7:15</u>
					End <u>8:00</u>

**DAILY PRODUCTION RECORDS**

Project Well Installation No : ~~004146~~ 004146 Boring # : _____
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : _____ Date : 10-23-92 Drill Bromley / Krukow
Client Rep : _____ Rig # : CME750 / CME 75A Doc M. K. E.

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development <u>1270 2.00</u> <u>MW-1</u> <u>2.5-7.5</u>	hr.	<u>6.5</u>			
4" Protective Casing with 3'x3' x 4' Pad	ea.	<u>2</u>		<u>2 PADS</u> <u>1 PRO CASING</u>	
6 Ft. Steel Post, 2"x2"	ea.	<u>/</u>			
Drilled & Concrete Set					
Screen: 2" PVC, SCH 40 (Installed 10' Screen)	ea.	<u>/</u>			
Screen: 2" PVC, SCH 40 (Installed 5' Screen)	ea.	<u>/</u>			
Screen: 2" PVC, SCH 40 (3 ft. long material only)	ea.	<u>/</u>			
Riser: 2" PVC, SCH 40 (material only)	ft.	<u>/</u>			
Riser: 2" PVC, SCH 40 (Installed)	ft.	<u>/</u>			
Locking Caps : 2" PVC, SCH 40 (Includes Master Lock)	ea.	<u>/</u>			
Riser: 6" PVC, SCH 80 (Installed)	ft.	<u>/</u>			
Backfill: 4-1/4" H.S.A. Grout in well annulus (Cement & powdered bentonite)	cu.	<u>25</u>			
Backfill: Bedrock Wells Grout in well annulus (Cement & powdered bentonite)	ft.	<u>/</u>			
Well Abandonment (Cement & powdered bentonite)	ft.	<u>/</u>			
Boring Abandonment (Cement & powdered bentonite)	ft.	<u>/</u>			
Sand (80 lbs) (In overburden wells)	ft.	<u>/</u>			
Sand (80 lbs) (In Bedrock Wells)	ft.	<u>/</u>			
Sand (80 lbs) (Material Only)	bag	<u>/</u>			



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: _____
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucel
 R&R Rep : _____ Date : 10-23-92 Drill Bromley / Krukow
 Client Rep : _____ Rig #: CME 750 / CME 75A Joe M. K.

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail.				
<u>BAG (Pond sc)</u>	1				
Out of Town Charges	days				
17H 55 Gallon Drums	ca.				
Standby Time	hr.				

Comments: water hauling I

S&K Retc - 17 Bags

PonThard 6 Bags

DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ Boring #: MW35B
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
 R&R Rep : [Signature] Date : 10-15-92 Drill Bromley / Krukow
 Client Rep : [Signature] Rig #: CME 750 (CME 75A) Helper - Digger
Helper - Bob

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea.	<input type="checkbox"/>	<input type="checkbox"/>		Start 7:00
Augering, 4-1/4" H.S.A. (No Samples)	ft.	<input type="checkbox"/>	<input type="checkbox"/>		7:00 left shop
Augering, 8-1/4" H.S.A. (No Samples)	ft.	<input type="checkbox"/>	<input type="checkbox"/>		6:00 get gas
Augering, 4-1/4 H.S.A w/ 2.5' and 5' c/c S.S. Samples	ft.	<input type="checkbox"/>	<input type="checkbox"/>		7:00 Truck arrived start
Augering, 4-1/4 H.S.A w/ cont. S.S. Samples	ft.	<input type="checkbox"/>	<input type="checkbox"/>		7:00 correct times
Augering, 8-1/4 H.S.A w/ cont. S.S. Samples	ft.	<input type="checkbox"/>	<input type="checkbox"/>		7:00 stopping on way
Split Spoon Samples (3")	ea.	<input type="checkbox"/>	<input type="checkbox"/>		8:00 had dinner
Shelby tubes, 3" Dia.	ea.	<input type="checkbox"/>	<input type="checkbox"/>		8:00 missed Exit
Sample Jars	dz.	<input type="checkbox"/>	<input type="checkbox"/>		9:00
Coring, NX or NXWL	ft.	<input type="checkbox"/>	<input type="checkbox"/>		9:00 arrive site
Air Rotary, 5-7/8" bit (No Sample)	ft.	<input type="checkbox"/>	<input type="checkbox"/>		10:00 make water run
Packer Testing	hr.	<input type="checkbox"/>	<input type="checkbox"/>		10:00 get materials
Wooden Boxes, NX or NXWL	ea.	<input type="checkbox"/>	<input type="checkbox"/>		11:00 to set casing
Vertical Groundwater Sampling through 4.25" H.S.A.	ea.	<input type="checkbox"/>	<input type="checkbox"/>		11:00 for MW35B
Vertical Groundwater Sampling through Bedrock corehole	ea.	<input type="checkbox"/>	<input type="checkbox"/>		12:00
Reaming: NX to 5-7/8	ft.	<input type="checkbox"/>	<input type="checkbox"/>		LUNCH
Rig and Equipment Decontamination	ea.	<input type="checkbox"/>	<input type="checkbox"/>		From: 12:00 To: 12:30

7:00 left shop
 6:00 get gas
 7:00 Truck arrived start
 7:00 correct times
 7:00 stopping on way
 8:00 had dinner
 8:00 missed Exit
 9:00
 9:00 arrive site
 10:00 make water run
 10:00 get materials
 11:00 to set casing
 11:00 for MW35B
 12:00
 LUNCH
 From: 12:00 To: 12:30
 12:30 Finish set
 1:00 casing
 2:00 Get up & equip
 2:00 Drain TANKER
 into supply
 3:00 tanker at location
 3:00 clean up
 4:00
 5:00
 6:00
 End 7:00



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW35B

Client WW ENGINEERING Loc : Albion, Michigan Driller McCurdy / Pucci

R&R Rep : [Signature] Date : 10-19-92 Dril Bromley / Krukow

Client Rep : Cathy Cotton Rig #: CME 750 / CME 75A Helper - Wigger
Helper - Bob

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development	hr.	0			
4" Protective Casing with 3'x3' x 4" Pad	ea.	1			
6 Ft. Steel Post, 2"x2" Drilled & Concrete Set	ea.	0			
Screen: 2" PVC, SCH 40 (Installed 10' Screen)	ea.	0			
Screen: 2" PVC, SCH 40 (Installed 5' Screen)	ea.	0			
Screen: 2" PVC, SCH 40 (3 ft. long material only)	ea.	0			
Riser: 2" PVC, SCH 40 (material only)	ft.	5			
Riser: 2" PVC, SCH 40 (Installed)	ft.	0			
Locking Caps : 2" PVC, SCH 40 (Includes Master Lock)	ea.	1			
Riser: 6" PVC, SCH 80 (Installed)	ft.	0			
Backfill: 4-1/4" H.S.A. Grout in well annulus (Cement & powdered bentonite)	ft.	0			
Backfill: Bedrock Wells Grout in well annulus (Cement & powdered bentonite)	ft.	0			
Well Abandonment (Cement & powdered bentonite)	ft.	0			
Boring Abandonment (Cement & powdered bentonite)	ft.	0			
Sand (80 lbs) (In overburden wells)	ft.	0			
Sand (80 lbs) (In Bedrock Wells)	ft.	0			
Sand (80 lbs) (Material Only)	bag	0			



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: 114035B
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : [Signature] Date : 10-19-92 Dril Bromley / Krukow
Client Rep : Cathy Cotton Rig #: CME 750 (CME 75A) Helper - Digger
Helper - Bob

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail.	<u>0</u>			
Out of Town Charges	days	<u>1</u>			
17H 55 Gallon Drums	ea.	<u>0</u>			
Standby Time	hr.	<u>0</u>			

Comments: 1 water Haul - for grouting (not rotary drilling)

DAILY PRODUCTION RECORDS

Project Well Installation No : ~~0041146~~ Boring #: MW 3 SR
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
 R&R Rep : [Signature] Date : 10-21-92 Dril Bromley / Krukow
 Client Rep : [Signature] Rig #: CME 750 (CME 75A) Helper - Digger
Helper - Bob

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea.	<u>C</u>			Start <u>7:00</u> <u>Hook up pump & hoses</u>
Augering, 4-1/4" H.S.A. (No Samples)	ft.	<u>C</u>			6:00 <u>At Decor</u> <u>Took up materials</u>
Augering, 8-1/4" H.S.A. (No Samples)	ft.	<u>C</u>			7:00 <u>to make parts for</u> <u>1045 Processors</u>
Augering, 4-1/4 H.S.A w/ 2.5' and 5' c/c S.S. Samples	ft.	<u>C</u>			8:00 <u>Finish parts</u> <u>Put surge block</u>
Augering, 4-1/4 H.S.A w/ cont. S.S. Samples	ft.	<u>C</u>			9:00 <u>together & load equip.</u> <u>to develop</u>
Augering, 8-1/4 H.S.A w/ cont. S.S. Samples	ft.	<u>C</u>			10:00 <u>start develop.</u>
Split Spoon Samples (3")	ea.	<u>C</u>			11:00 <u>MW 3 SR</u>
Shelby tubes, 3" Dia.	ea.	<u>C</u>			12:00
Sample Jars	dz.	<u>C</u>			LUNCH From: <u>11:30</u> To: <u>12:00</u>
Coring, NX or NXWL	ft.	<u>C</u>			3:00 <u>stop develop to</u> <u>give client back</u>
Air Rotary, 5-7/8" bit (No Sample)	ft.	<u>C</u>			1:00 <u>their pump. Put</u> <u>cur pump together</u>
Packer Testing	hr.	<u>C</u>			2:00 <u>start develop</u>
Wooden Boxes, NX or NXWL	ea.	<u>C</u>			3:00 <u>MW 3 SR</u> <u>Finish develop</u>
Vertical Groundwater Sampling through 4.25" H.S.A.	ea.	<u>C</u>			4:00 <u>Drum pump & water</u> <u>in tank</u>
Vertical Groundwater Sampling through Bedrock corehole	ea.	<u>C</u>			5:00 <u>Antifreeze equip.</u> <u>clean up</u>
Reaming: NX to 5-7/8	ft.	<u>C</u>			6:00
Rig and Equipment Decontamination	ea.	<u>C</u>			End <u>8:00</u>



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW333
Client W.W. ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : [Signature] Date : 10-21-97 Drill Bromley / Krukow
Client Rep : [Signature] Rig #: CME 750 / CME 75A Helper - Digger
Helper - Bob

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development	hr.	4			
4" Protective Casing with 3'x3' x 4" Pad	ea.	0			
6 Ft. Steel Post, 2"x2" Drilled & Concrete Set	ea.	0			
Screen: 2" PVC, SCH 40 (Installed 10' Screen)	ea.	0			
Screen: 2" PVC, SCH 40 (Installed 5' Screen)	ea.	0			
Screen: 2" PVC, SCH 40 (3 ft. long material only)	ea.	0			
Riser: 2" PVC, SCH 40 (material only)	ft.	0			
Riser: 2" PVC, SCH 40 (Installed)	ft.	0			
Locking Caps : 2" PVC, SCH 40 (Includes Master Lock)	ea.	1			
Riser: 6" PVC, SCH 80 (Installed)	ft.	0			
Backfill: 4-1/4" H.S.A. Grout in well annulus (Cement & powdered bentonite)	ft.	0			
Backfill: Bedrock Wells Grout in well annulus (Cement & powdered bentonite)	ft.	0			
Well Abandonment (Cement & powdered bentonite)	ft.	0			
Boring Abandonment (Cement & powdered bentonite)	ft.	0			
Sand (80 lbs) (In overburden wells)	ft.	0			
Sand (80 lbs) (In Bedrock Wells)	ft.	0			
Sand (80 lbs) (Material Only)	bag	0			



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW3SB
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : [Signature] Date : 10-21-92 Dril Bromley / Krukow
Client Rep : [Signature] Rig #: CME 750 / CME 75A Helper - Disser
Helper - Bob

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail.	0			
Out of Town Charges	days	1			
17H 55 Gallon Drums	ea.	0			
Standby Time	hr.	0			

Comments : _____



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW45B
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
 R&R Rep : [Signature] Date : 10-20-92 Drill Bromley / Krukow
 Client Rep : Cathy Cotton Rig #: CME 750 / CME 75A Helper - Digger
 Helper - Bob

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea.	<input type="checkbox"/>	<input type="checkbox"/>		Start 7:00 Get pumps + hoses
Augering, 4-1/4" H.S.A. (No Samples)	ft.	<input type="checkbox"/>	<input type="checkbox"/>		6:00 Get + pump water 800 in chain grouter
Augering, 8-1/4" H.S.A. (No Samples)	ft.	<input type="checkbox"/>	<input type="checkbox"/>		7:00 Get truck + grouter 1000 truck at MW 25B
Augering, 4-1/4 H.S.A w/ 2.5' and 5' c/c S.S. Samples	ft.	<input type="checkbox"/>	<input type="checkbox"/>		8:00 Drzer pulled us out. Rick wants
Augering, 4-1/4 H.S.A w/ cont. S.S. Samples	ft.	<input type="checkbox"/>	<input type="checkbox"/>		9:00 MW45B Grouted Start Time on
Augering, 8-1/4 H.S.A w/ cont. S.S. Samples	ft.	<input type="checkbox"/>	<input type="checkbox"/>		10:00 grouter was flat take time to get
Split Spoon Samples (3")	ea.	<input type="checkbox"/>	<input type="checkbox"/>		11:00 repaired. 1040 Back at site
Shelby tubes, 3" Dia.	ea.	<input type="checkbox"/>	<input type="checkbox"/>		12:00 put tire on.
Sample Jars	dz.	<input type="checkbox"/>	<input type="checkbox"/>		LUNCH From: 1100 To: 1130
Coring, NX or NXWL	ft.	<input type="checkbox"/>	<input type="checkbox"/>		Get up + start 1:00 MW45B
Air Rotary, 5-7/8" bit (No Sample)	ft.	<input type="checkbox"/>	<input type="checkbox"/>		1:30 Finish grout + 2:00 set Pro casing
Packer Testing	hr.	<input type="checkbox"/>	<input type="checkbox"/>		1:45 start + set up to 3:00 grout MW25B
Wooden Boxes, NX or NXWL	ea.	<input type="checkbox"/>	<input type="checkbox"/>		3:30 Finish grout + 4:00 set Pro casing
Vertical Groundwater Sampling through 4.25" H.S.A.	ea.	<input type="checkbox"/>	<input type="checkbox"/>		clean chain grouter 5:00 + truck
Vertical Groundwater Sampling through Bedrock corehole	ea.	<input type="checkbox"/>	<input type="checkbox"/>		6:00
Reaming: NX to 5-7/8	ft.	<input type="checkbox"/>	<input type="checkbox"/>		End
Rig and Equipment Decontamination	ea.	<input type="checkbox"/>	<input type="checkbox"/>		



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW 4523
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy Pucci
R&R Rep.: [Signature] Date : 10-30-82 Dril Bromley / Krukow
Client Rep: [Signature] Rig #: CME 750 / CME 75A Helper - Digger
Helper - Bob

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development	hr.	0			
4" Protective Casing with 3'x3' x 4" Pad	ea.	2			
6 Ft. Steel Post, 2"x2" Drilled & Concrete Set	ea.	0			
Screen: 2" PVC, SCH 40 (Installed 10' Screen)	ea.	0			
Screen: 2" PVC, SCH 40 (Installed 5' Screen)	ea.	0			
Screen: 2" PVC, SCH 40 (3 ft. long material only)	ea.	0			
Riser: 2" PVC, SCH 40 (material only)	ft.	0			
Riser: 2" PVC, SCH 40 (Installed)	ft.	0			
Locking Caps : 2" PVC, SCH 40 (Includes Master Lock)	ea.	0			
Riser: 6" PVC, SCH 80 (Installed)	ft.	0			
Backfill: 4-1/4" H.S.A. Grout in well annulus (Cement & powdered bentonite)	ft.	0			
Backfill: Bedrock Wells Grout in well annulus (Cement & powdered bentonite)	ft.	103.5			
Well Abandonment (Cement & powdered bentonite)	ft.	0			
Boring Abandonment (Cement & powdered bentonite)	ft.	0			
Sand (80 lbs) (In overburden wells)	ft.	0			
Sand (80 lbs) (In Bedrock Wells)	ft.	0			
Sand (80 lbs) (Material Only)	bag	0			



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW4SB
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : [Signature] Date : 10-30-90 Dril Bromley / Krukow
Client Rep : Patricia Cotton Rig #: CME 750 CME 75A Helper - Dissen
Helper - Bob

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail.	1			
Out of Town Charges	days	1			
17H 55 Gallon Drums	ea.	0			
Standby Time	hr.	0			

Comments: _____



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ Boring #: MW-2-5G
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : _____ Date : 11-10-92 Drill Bromley / Krukow
Client Rep : Don Johnson - WWES Rig #: CME 750 CME 75A Joe Mike

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea. /				Start <u>7:30</u>
Augering, 4-1/4" H.S.A. (No Samples)	ft. /				6:00
Augering, 8-1/4" H.S.A. (No Samples)	ft. /				7:30 <u>Stand by</u>
Augering, 4-1/4 H.S.A. w/ 2.5' and 5' c/c S.S. Samples	ft. /				8:30 <u>Move to MW-2</u>
Augering, 4-1/4 H.S.A. <u>35'</u> w/ cont. S.S. Samples	ft. <u>35</u>				9:00 <u>Start Drill</u>
Augering, 8-1/4 H.S.A. w/ cont. S.S. Samples	ft. /				10:00
Split Spoon Samples (3") <u>5</u>	ea. <u>5</u>				11:00 <u>Grouting</u>
Shelby tubes, 3" Dia.	ea. /				12:00
Sample Jars	dz. /				LUNCH From: <u>12:30</u> To: <u>1:00</u>
Coring, NX or NXWL	ft. /				1:00 <u>Stand by</u>
Air Rotary, 5-7/8" bit (No Sample)	ft. /			<u>7 Bags sackrete</u>	2:00 <u>3x3 Pad MW 6</u>
Packer Testing	hr. /				<u>2:30 buy more sackrete</u>
Wooden Boxes, NX or NXWL	ea. /			<u>6 Bags sackrete</u>	3:00 <u>3x3 Pad MW 2-5G</u>
Vertical Groundwater Sampling through 4.25" H.S.A.	ea. /				4:00 <u>Decor</u>
Vertical Groundwater Sampling through Bedrock corehole	ea. /				5:00
Reaming: NX to 5-7/8	ft. /				6:00
Rig and Equipment Decontamination	ea. <u>2</u>				End



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW 2-5G
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : _____ Date : 11-10-92 Dril Bromley / Krukow
Client Rep : Don Johnson - WWES Rig #: CME 750 / CME 75A Joe M. Ke

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development	hr. /				
4" Protective Casing with 3'x3' x 4" Pad	ea. 2				
6 Ft. Steel Post, 2"x2" Drilled & Concrete Set	ea. /				
Screen: 2" PVC, SCH 40 (Installed 10' Screen)	ea. /				
Screen: 2" PVC, SCH 40 (Installed 5' Screen) 5'	ea. 5				
Screen: 2" PVC, SCH 40 (3 ft. long material only)	ea. 1				
Riser: 2" PVC, SCH 40 (material only)	ft. /				
Riser: 2" PVC, SCH 40 (Installed) 30'	ft. 30				
Locking Caps : 2" PVC, SCH 40 (Includes Master Lock)	ea. 1				
Riser: 6" PVC, SCH 80 (Installed)	ft. /				
Backfill: 4-1/4" H.S.A. Grout in well annulus (Cement & powdered bentonite) 25'	ft. 25			9 Bags Portland	
Backfill: Bedrock Wells Grout in well annulus (Cement & powdered bentonite)	ft. /				
Well Abandonment (Cement & powdered bentonite)	ft. /				
Boring Abandonment (Cement & powdered bentonite)	ft. /				
Sand (80 lbs) (In overburden wells)	ft. /				
Sand (80 lbs) (In Bedrock Wells)	ft. /				
Sand (80 lbs) (Material Only)	bag 5				



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW 2 - SG
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : _____ Date : 11-10-92 Drill Bromley / Krukow
Client Rep : Don Johnson-wwes Rig #: CME 750 / CME 75A Joe M. Ke

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail. /				
Out of Town Charges	days 1				
17H 55 Gallon Drums	ea. /				
Standby Time 1	hr 2				

Comments: 13 Bags sackrete Today

4 2402 Locks on Gate's app

MW-5-SG

DAILY PRODUCTION RECORDS

Project Well Installation No : ~~0041146~~ Boring #:
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
 R&R Rep : Date : 11-11-92 Drill Bromley / Krukow
 Client Rep : Don Johnson-wwes Rig #: CME 750 / CME 75A Joc Mike

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea. /				Start <u>7:30</u>
Augering, 4-1/4" H.S.A. (No Samples)	ft. <u>100</u>				6:00
Augering, 8-1/4" H.S.A. (No Samples)	ft. /				7:00
Augering, 4-1/4 H.S.A w/ 2.5' and 5' c/c S.S. Samples	ft. /				8:00 <u>Move to MW-5-SG</u>
Augering, 4-1/4 H.S.A w/ cont. S.S. Samples	ft. /				9:00 <u>Stuck supplies water</u>
Augering, 8-1/4 H.S.A w/ cont. S.S. Samples	ft. /				10:00 <u>Setting well</u>
Split Spoon Samples (3")	ea. <u>1</u>				10:30 <u>GROUTING</u>
Shelby tubes, 3" Dia.	ea. /				11:00 <u>Move to Decon</u>
Sample Jars	dz. /				LUNCH From <u>11:30</u> To <u>12:00</u>
Coring, NX or NXWL	ft. /				1:00 <u>Decon</u>
Air Rotary, 5-7/8" bit (No Sample)	ft. /			<u>Mike 3K3 Pad</u>	<u>Move to Bore</u>
Packer Testing	hr. /			<u>OW MW5-SG</u>	2:00
Wooden Boxes, NX or NXWL	ea. /				<u>Change Rig, Auger 5</u>
Vertical Groundwater Sampling through 4.25" H.S.A.	ea. /				3:00 <u>8 hooked to Dr.</u>
Vertical Groundwater Sampling through Bedrock corehole	ea. /				<u>with 750. Deep Corri.</u>
Reaming: NX to 5-7/8	ft. /				4:00 <u>Move Rig Start</u>
Rig and Equipment Decontamination	ea. /				5:00 <u>Dr. LK</u>
					6:00
					End



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004/46~~ 004/46 Boring #:
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : Date : 11-11-92 Drill Bromley / Krukow
Client Rep : Don Johnson Rig #: CME 750 / CME 75A Joe mkt

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development	hr. /				
4" Protective Casing with 3'x3' x 4" Pad	ea. 1				
6 Ft. Steel Post, 2"x2" Drilled & Concrete Set	ea. /				
Screen: 2" PVC, SCH 40 (Installed 10' Screen)	ea. /				
Screen: 2" PVC, SCH 40 (Installed 5' Screen)	ea. 1				
Screen: 2" PVC, SCH 40 (3 ft. long material only)	ea. /				
Riser: 2" PVC, SCH 40 (material only)	ft. /				
Riser: 2" PVC, SCH 40 28' (Installed)	28				
Locking Caps : 2" PVC, SCH 20 (Includes Master Lock)	ea. 1				
Riser: 6" PVC, SCH 80 (Installed)	ft. /				
Backfill: 4-1/4" H.S.A. Grout in well annulus (Cement & powdered bentonite) 18'	ft. 18				
Backfill: Bedrock Wells Grout in well annulus (Cement & powdered bentonite)	ft. /				
Well Abandonment (Cement & powdered bentonite)	ft. /				
Boring Abandonment (Cement & powdered bentonite)	ft. /				
Sand (80 lbs) 8 (In overburden wells)	ft. 8				
Sand (80 lbs) (In Bedrock Wells)	ft. /				
Sand (80 lbs) (Material Only)	bag 2				



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~33~~ 004146 Boring # : _____
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy Pucci
R&R Rep : _____ Date : 11-11-92 Drill Bromley / Krukow
Client Rep : Don Johnson Rig # : CME 750 / CME 75A Joe M. Ke

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail 1				
Out of Town Charges	days 1				
17H 55 Gallon Drums	ea. /				
Standby Time	hr 1/2				

Comments: water Hauling I.
7 Bags Portland
4 Bags Sackrete

DAILY PRODUCTION RECORDS

Project Well Installation No : ~~200~~ 004146 Boring #: MW 65B
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
 R&R Rep : [Signature] Date : 11-6-92 Dril Bromley / Krukow
 Client Rep : Don Johnson - WWES Rig #: CME 750 / CME 75A Helper - Digger
Helper - Bob

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea.	/			Start <u>7:00</u> <u>load Drums + pump</u>
Augering, 4-1/4" H.S.A. (No Samples)	ft.	/			6:00 <u>start Develop</u>
Augering, 8-1/4" H.S.A. (No Samples)	ft.	/			8:00 <u>MW 65B</u> <u>Buy pocket Portland</u>
Augering, 4-1/4 H.S.A w/ 2.5' and 5' c/c S.S. Samples	ft.	/			7:00 <u>+ Plastic to cover</u> <u>supplies.</u>
Augering, 4-1/4 H.S.A w/ cont. S.S. Samples	ft.	/			8:00 <u>10:30 Finish Develop.</u>
Augering, 8-1/4 H.S.A w/ cont. S.S. Samples	ft.	/			10:00 <u>Dump water</u>
Split Spoon Samples (3")	ea.	/			11:00 <u>left site</u>
Shelby tubes, 3" Dia.	ea.	/			12:00
Sample Jars	dz.	/			LUNCH From: To:
Coring, NX or NXWL	ft.	/			1:00
Air Rotary, 5-7/8" bit (No Sample)	ft.	/			2:00
Packer Testing	hr.	/			3:00
Wooden Boxes, NX or NXWL	ea.	/			4:00
Vertical Groundwater Sampling through 4.25" H.S.A.	ea.	/			5:00
Vertical Groundwater Sampling through Bedrock corehole	ea.	/			6:00
Reaming: NX to 5-7/8	ft.	/			End
Rig and Equipment Decontamination	ea.	/			

DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW65B
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
 R&R Rep : [Signature] Date : 11-6-82 Dril Bromley / Krukow
 Client Rep : Don Johnson - WWES Rig #: CME 750 / CME 75A Helper - Digger
Helper - Bob

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development	hr.	2.5			
4" Protective Casing with 3'x3' x 4" Pad	ea.	/			
6 Ft. Steel Post, 2"x2" Drilled & Concrete Set	ea.	/			
Screen: 2" PVC, SCH 40 (Installed 10' Screen)	ea.	/			
Screen: 2" PVC, SCH 40 (Installed 5' Screen)	ea.	/			
Screen: 2" PVC, SCH 40 (3 ft. long material only)	ea.	/			
Riser: 2" PVC, SCH 40 (material only)	ft.	/			
Riser: 2" PVC, SCH 40 (Installed)	ft.	/			
Locking Caps : 2" PVC, SCH 40 (Includes Master Lock)	ea.	/			
Riser: 6" PVC, SCH 80 (Installed)	ft.	/			
Backfill: 4-1/4" H.S.A. Grout in well annulas (Cement & powdered bentonite)	ft.	/			
Backfill: Bedrock Wells Grout in well annulas (Cement & powdered bentonite)	ft.	/			
Well Abandonment (Cement & powdered bentonite)	ft.	/			
Boring Abandonment (Cement & powdered bentonite)	ft.	/			
Sand (80 lbs) (In overburden wells)	ft.	/			
Sand (80 lbs) (In Bedrock Wells)	ft.	/			
Sand (80 lbs) (Material Only)	bag	/			



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~304146~~ 004146 Boring #: MW6SB

Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci

R&R Rep : [Signature] Date : 11-6-92 Dril Bromley / Krukow

Client Rep : Don Johnson - WWES Rig #: CME 750 / CME 75A Helper - Digger
Helper - Bob

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail.				
Out of Town Charges	days	1			
17H 55 Gallon Drums	ea.				
Standby Time	hr.				

Comments : _____



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW ~~4201~~ 7-B
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : _____ Date : 11-14-92 Drill Bromley / Krukow
Client Rep : Don Johnson wwes Rig #: CME 750 / CME 75A Joe M. Ke

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development <i>Set well</i>	hr. <i>2</i>				
4" Protective Casing with 3'x3' x 4" Pad	ea. /				
6 Ft. Steel Post, 2"x2" Drilled & Concrete Set	ea. /				
Screen: 2" PVC, SCH 40 (Installed 10' Screen)	ea. /				
Screen: 2" PVC, SCH 40 (Installed 5' Screen)	ea. <i>1</i>				
Screen: 2" PVC, SCH 40 (3 ft. long material only)	ea. /				
Riser: 2" PVC, SCH 40 (material only)	ft. /				
Riser: 2" PVC, SCH 40 (Installed)	ft. <i>58</i>				
Locking Caps : 2" PVC, SCH 40 (Includes Master Lock)	ea. /				
Riser: 6" PVC, SCH 80 (Installed)	ft. /				
Backfill: 4-1/4" H.S.A. Grout in well annulus (Cement & powdered bentonite)	ft. /				
Backfill: Bedrock Wells Grout in well annulus (Cement & powdered bentonite)	ft. /				
Well Abandonment (Cement & powdered bentonite)	ft. /				
Boring Abandonment (Cement & powdered bentonite)	ft. /				
Sand (80 lbs) (In overburden wells)	7				
Sand (80 lbs) (In Bedrock Wells)	ft. /				
Sand (80 lbs) (Material Only)	bag /				



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~304146~~ 304146 Boring #: MW-~~W~~ B
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : _____ Date : 11-16-96 Dril Bromley / Krukow
Client Rep : Don Johnson - WWES Rig #: CME 750 / CME 75A Boz McKe

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail /				
Out of Town Charges	days /				
17H 55 Gallon Drums	ea. /				
Standby Time	hr. /				

Comments : _____



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ Boring #: 114' 3-5
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pacci
R&R Rep : _____ Date : 11-17-92 Dril Bromley / Krukow
Client Rep : Ron Schmitt-wwes Rig #: CME 750 / CME 75A Joe M. Ke

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea. /				Start <u>7:00</u>
Augering, 4-1/4" H.S.A. (No Samples)	ft. <u>45</u>				6:00
Augering, 8-1/4" H.S.A. (No Samples)	ft. /			<u>Written T.C. MAN AT GATE</u>	7:00 <u>Grounding 50'</u>
Augering, 4-1/4 H.S.A w/ 2.5' and 5' c/c S.S. Samples	ft. /				8:00
Augering, 4-1/4 H.S.A w/ cont. S.S. Samples	ft. /				9:00
Augering, 8-1/4 H.S.A w/ cont. S.S. Samples	ft. /				10:00 <u>Decor</u>
Split Spoon Samples (3")	ea. <u>1</u>				11:00 <u>T.T. Boring</u>
Shelby tubes, 3" Dia.	ea. /				12:00
Sample Jars	dz. /				LUNCH From: <u>1:00</u> To: <u>1:30</u>
Coring, NX or NXWL	ft. /			<u>9" Re Drift</u>	1:00 <u>Settling well</u>
Air Rotary, 5-7/8" bit (No Sample)	ft. /				2:00
Packer Testing	hr. /				3:00
Wooden Boxes, NX or NXWL	ea. /				4:00
Vertical Groundwater Sampling through 4.25" H.S.A.	ea. /				5:00
Vertical Groundwater Sampling through Bedrock corehole	ea. /				6:00
Reaming: NX to 5-7/8	ft. /				End
Rig and Equipment Decontamination	ea. <u>1</u>				



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: 171 W 3 - S E
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : _____ Date : 11-17-92 Drill Bromley / Krukow
Client Rep : Jim Johnson - owner Rig #: CME 750 / CME 75A Joe Mike

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development					
<u>Setting well</u>	<u>4 hrs</u>			<u>Heaving sand</u>	
4" Protective Casing with	ea.				
3'x3' x 4" Pad	/				
6 Ft. Steel Post, 2"x2"	ea.				
Drilled & Concrete Set					
Screen: 2" PVC, SCH 40	ea.				
(Installed 10' Screen)	/				
Screen: 2" PVC, SCH 40	ea.				
(Installed 5' Screen)	/				
Screen: 2" PVC, SCH 40	ea.				
(3 ft. long material only)	/				
Riser: 2" PVC, SCH 40	ft.				
(material only)	/				
Riser: 2" PVC, SCH 40	ft.				
(Installed)	<u>40'</u>				
Locking Caps : 2" PVC, SCH 40	ea.				
(Includes Master Lock)	/				
Riser: 6" PVC, SCH 80	ft.				
(Installed)	/				
Backfill: 4-1/4" H.S.A. Grout in well annulus	ft.				
(Cement & powdered bentonite)	<u>50'</u>				
Backfill: Bedrock Wells Grout in well annulus	ft.				
(Cement & powdered bentonite)	/				
Well Abandonment	ft.				
(Cement & powdered bentonite)	/				
Boring Abandonment	ft.				
(Cement & powdered bentonite)	/				
Sand (80 lbs)	ft.				
(In overburden wells)	<u>7'</u>				
Sand (80 lbs)	ft.				
(In Bedrock Wells)	/				
Sand (80 lbs)	bag				
(Material Only)	/				



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW 3-S @
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : _____ Date : 11-17-92 Dril Bromley / Krukow
Client Rep : Don Johnson Rig #: CME 750 / CME 75A Joe M. Ke

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail.				
Out of Town Charges	days				
17H 55 Gallon Drums	ea.				
Standby Time	hr.				

Comments: WATER HAULING I
18 BAGS PORTLAND
1 BENT. POWDER
REDISK 9' HEAVING SAND



MW 6WB

DAILY PRODUCTION RECORDS

Project Well Installation No : ~~204146~~ Boring #: MW 3 SG
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
 R&R Rep : _____ Date : 11-18-92 Dril Bromley / Krukow
 Client Rep : Don Johnson - WWES Rig #: CME 750 / CME 75A Joe Mike

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea. /				Start
Augering, 4-1/4" H.S.A. (No Samples)	ft. 52'				6:00
Augering, 8-1/4" H.S.A. (No Samples)	ft. /			14 BAGS 12 PORT	7:00 Grouting well
Augering, 4-1/4 H.S.A. w/ 2.5' and 5' c/c S.S. Samples	ft. /			26	8:00
Augering, 4-1/4 H.S.A. w/ cont. S.S. Samples	ft. /				9:00
Augering, 8-1/4 H.S.A. w/ cont. S.S. Samples	ft. /				10:00 Have to Punch
Split Spoon Samples (3")	ea. 1				11:00
Shelby tubes, 3" Dia.	ea. /				12:00
Sample Jars	dz. /			Mike Ave 5x3 Pals	LUNCH From: 2:30 To: 1:00
Coring, NX or NXWL	ft. /				1:00 Start MW-6WB
Air Rotary, 5-7/8" bit (No Sample)	ft. /				2:00 145 Sett. well
Packer Testing	hr. /				3:00
Wooden Boxes, NX or NXWL	ea. /				4:00 Grouting
Vertical Groundwater Sampling through 4.25" H.S.A.	ea. /				5:00
Vertical Groundwater Sampling through Bedrock corehole	ea. /				6:00
Reaming: NX to 5-7/8	ft. /				End
Rig and Equipment Decontamination	ea. 1				



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW 3SG
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : Date : 11-18-92 Drill Bromley / Krukow
Client Rep : Don Johnson - wells Rig #: CME 750 / CME 75A Joe Mike

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development	hr.				
<i>Setting well</i>	<i>2.5</i>				
4" Protective Casing with	ea.				
3'x3' x 4" Pad	<i>2</i>				
6 Ft. Steel Post, 2"x2"	ea.				
Drilled & Concrete Set	<i>/</i>				
Screen: 2" PVC, SCH 40	ea.				
(Installed 10' Screen)	<i>/</i>				
Screen: 2" PVC, SCH 40	ea.				
(Installed 5' Screen)	<i>1</i>				
Screen: 2" PVC, SCH 40	ea.				
(3 ft. long material only)	<i>/</i>				
Riser: 2" PVC, SCH 40	ft.				
(material only)	<i>/</i>				
Riser: 2" PVC, SCH 40	ft.				
(Installed)	<i>50</i>				
Locking Caps : 2" PVC, SCH 40	ea.				
(Includes Master Lock)	<i>2</i>				
Riser: 6" PVC, SCH 80	ft.				
(Installed)	<i>/</i>				
Backfill: 4-1/4" H.S.A. Grout in well annulus	ft.				
(Cement & powdered bentonite)	<i>77</i>				
Backfill: Bedrock Wells Grout in well annulus	ft.				
(Cement & powdered bentonite)	<i>/</i>				
Well Abandonment	ft.				
(Cement & powdered bentonite)	<i>/</i>				
Boring Abandonment	ft.				
(Cement & powdered bentonite)	<i>/</i>				
Sand (80 lbs)	ft.				
(In overburden wells)	<i>7</i>				
Sand (80 lbs)	ft.				
(In Bedrock Wells)	<i>/</i>				
Sand (80 lbs)	bag				
(Material Only)	<i>/</i>				



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~504146~~ 004146 Boring #: MW 3-SG
Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
R&R Rep : _____ Date : 11-18-92 Drill Bromley / Krukow
Client Rep : Don Johnson - WWES Rig #: CME 750 / CME 75A Joe Mike

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail.				
<u>50 lbs Bentonite</u>					
Out of Town Charges	days				
17H 55 Gallon Drums	ea.				
Standby Time	hr.				

Comments:

water leaking I-

3/ Bentonite

1 Bentonite

14 Sackite

3 sand

MW 2WB

DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ Boring #: MW 6 SGT
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
 R&R Rep : _____ Date : 11-19-92 Drill Bromley / Krukow
 Client Rep : Don Johnson Rig #: CME 750 / CME 75A Joe, Mike

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea.	/	/		Start
Augering, 4-1/4" H.S.A. 28' 654	ft.	/	/		6:00
(No Samples) 54' 2WB	82	/	/		
Augering, 8-1/4" H.S.A. 82'	ft.	/	/		7:00 Decon
(No Samples)	/	/	/		
Augering, 4-1/4 H.S.A w/ 2.5' and 5' c/c S.S. Samples	ft.	/	/		8:00 START MW 6
Augering, 4-1/4 H.S.A w/ cont. S.S. Samples	ft.	/	/		9:30 Set well
Augering, 8-1/4 H.S.A w/ cont. S.S. Samples	ft.	/	/		9:00 MW 6
Split Spoon Samples (3") 2	ea.	2	/	(McCurdy)	10:00 Start Logging
Shelby tubes, 3" Dia.	ea.	/	/	Two Rig + Tools	11:00 Decon
Sample Jars	dz.	/	/	in Decon Pad	12:00 etc. Hauling
Coring, NX or NXWL	ft.	/	/	Water Tanker	LUNCH
Air Rotary, 5-7/8" bit (No Sample)	ft.	/	/	No. 9 Stack	From: 12 To: 1:00
Packer Testing	hr.	/	/		1:00
Wooden Boxes, NX or NXWL	ea.	/	/	Log Stack in Hole	2:00
Vertical Groundwater Sampling through 4.25" H.S.A.	ea.	/	/		3:00
Vertical Groundwater Sampling through Bedrock corehole	ea.	/	/		4:00
Reaming: NX to 5-7/8	ft.	/	/		5:00
Rig and Equipment Decontamination 2	ea.	2	/		6:00
					End

MW. Z. WB

DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW-6-SC
Client WW ENGINEERING Loc : Albion, Michigan Drills McCurdy / Pucci
R&R Rep : _____ Date : 11-19-92 Drill Bromley / Krukow
Client Rep: Don Johnson - owner Rig #: CME 750 / CME 75A Joe M. Ke.

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development	hr.				
Set well	2				
4" Protective Casing with	ea.				
3'x3' x 4" Pad	2				
6 Ft. Steel Post, 2"x2"	ea.				
Drilled & Concrete Set	/				
Screen: 2" PVC, SCH 40	ea.				
(Installed 10' Screen)	/				
Screen: 2" PVC, SCH 40	ea.				
(Installed 5' Screen)	2				
Screen: 2" PVC, SCH 40	ea.				
(3 ft. long material only)	/				
Riser: 2" PVC, SCH 40	ft.				
(material only)	/				
Riser: 2" PVC, SCH 40	ft.				
(Installed)	28 50				
Locking Caps : 2" PVC, SCH 40	ea.				
(Includes Master Lock)	3				
Riser: 6" PVC, SCH 80	ft.				
(Installed)	/				
Backfill: 4-1/4" H.S.A. Grout in well annulas	ft.				
(Cement & powdered bentonite)	18				
Backfill: Bedrock Wells Grout in well annulas	ft.				
(Cement & powdered bentonite)	/				
Well Abandonment	ft.				
(Cement & powdered bentonite)	/				
Boring Abandonment	ft.				
(Cement & powdered bentonite)	/				
Sand (80 lbs)	ft.				
(In overburden wells)	7				
Sand (80 lbs)	ft.				
(In Bedrock Wells)	/				
Sand (80 lbs)	bag				
(Material Only)	/				

MW'2 WB

DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: MW 6 SG
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
 R&R Rep : _____ Date : 11-19-92 Dril Bromley / Krukow
 Client Rep : Don Johnson Rig #: CME 750 / CME 75A Joe, Mike

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail.				
<u>① Hole plug</u> Out of Town Charges	days				
17H 55 Gallon Drums	ea.				
Standby Time <u>5</u>	hr.				

Comments: WATER HAULING I
7 Portland
1 Bag
10 Sackrete
2 Hole Plugs

DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ Boring #: 6
 Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy / Pucci
 R&R Rep : _____ Date : 11-9-92 Drill Bromley / Krukow
 Client Rep : Don Johnson - WWES Rig #: CME 750 / CME 75A Joe M. KC

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Mobilization and Demobilization of Drill Rig	ea. /				Start <u>7:00</u>
Augering, 4-1/4" H.S.A. (No Samples)	ft. /				6:00
Augering, 8-1/4" H.S.A. (No Samples)	ft. /				7:00
Augering, 4-1/4 H.S.A w/ 2.5' and 5' c/c S.S. Samples	ft. /			Broke Drive CAP 4' Sheared OFF	8:00 Check R. g
Augering, 4-1/4 H.S.A w/ cont. S.S. Samples	ft. /			B. 15 or 16 in Drive	9:00 Augers stuck
Augering, 8-1/4 H.S.A w/ cont. S.S. Samples	ft. /				9:30 Repair R. g
Split Spoon Samples (3")	ea. /				10:00
Shelby tubes, 3" Dia.	ea. /				11:00
Sample Jars	dz. /				12:00
Coring, NX or NXWL	ft. /				LUNCH From <u>12:00</u> To <u>12:30</u>
Air Rotary, 5-7/8" bit (No Sample)	ft. /				1:00 Augers loose
Packer Testing	hr. /				2:00 Mix Grout
Wooden Boxes, NX or NXWL	ea. /				3:00 Decon
Vertical Groundwater Sampling through 4.25" H.S.A.	ea. /				4:00
Vertical Groundwater Sampling through Bedrock corehole	ea. /				5:00
Reaming: NX to 5-7/8	ft. /				6:00
Rig and Equipment Decontamination	ea. /				End

1 899



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~004146~~ 004146 Boring #: 6

Client WW ENGINEERING Loc : Albion, Michigan Drill McCurdy (Pucci)

R&R Rep : Date : 11-9-92 Dril Bromley / Krukow

Client Rep : Don Johnson - WWES Rig #: CME 750 (CME 75A) Joe Mike

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Well development	hr. /				
4" Protective Casing with	ea. /				
3'x3' x 4" Pad	ea. /				
6 Ft. Steel Post, 2"x2"	ea. /				
Drilled & Concrete Set	ea. /				
Screen: 2" PVC, SCH 40	ea. /				
(Installed 10' Screen)	ea. /				
Screen: 2" PVC, SCH 40	ea. /				
(Installed 5' Screen)	ea. /				
Screen: 2" PVC, SCH 40	ea. /				
(3 ft. long material only)	ea. /				
Riser: 2" PVC, SCH 40	ft. /				
(material only)	ft. /				
Riser: 2" PVC, SCH 40	ft. /				
(Installed)	ft. /				
Locking Caps : 2" PVC, SCH 40	ea. /				
(Includes Master Lock)	ea. /				
Riser: 6" PVC, SCH 80	ft. /				
(Installed)	ft. /				
Backfill: 4-1/4" H.S.A. Grout in well annulus	ft. /				
(Cement & powdered bentonite)	64			16 Bags Portland 1 Bag Portland	
Backfill: Bedrock Wells Grout in well annulus	ft. /				
(Cement & powdered bentonite)	ft. /				
Well Abandonment	ft. /				
(Cement & powdered bentonite)	ft. /				
Boring Abandonment	ft. /				
(Cement & powdered bentonite)	ft. /				
Sand (80 lbs)	ft. /				
(In overburden wells)	ft. /				
Sand (80 lbs)	ft. /				
(In Bedrock Wells)	ft. /				
Sand (80 lbs)	bag /				
(Material Only)	bag /				



DAILY PRODUCTION RECORDS

Project Well Installation No : ~~3004~~ 004146 Boring #: 6

Client WW ENGINEERING Loc : Albion, Michigan Drills McCurdy / Pucci

R&R Rep : Date : 11-9-92 Drills Bromley / Krukow

Client Rep : Don Johnson WWS Rig #: CME 750 / CME 75A Joc Mike

DESCRIPTION	UNITS	Level D	Level C	COMMENTS	TIME LOG
Bentonite Pellets (50 lbs)	Pail. /				
Out of Town Charges	days, /				
17H 55 Gallon Drums	ea. /				
Standby Time	hr. /				

Comments: Water Hauling Dec 01 I

DAILY PROGRESS WORKSHEET
Phase I

JOB #: 4011.00
LOCATION: Albion-Sheridan, MI
CONTRACTOR: R&R International

CODE	LEV	DESCRIPTION	UNIT	BID AMOUNT	UNIT PRICE	BID QTY.	WORK COMPLETED	WORK COMPLETED	WORK COMPLETED	WORK COMPLETED	WORK COMPLETED
							DATE: Monday 11/13/92	DATE: Tuesday 12/1/92	DATE: Wednesday 12/2/92	DATE: Thursday 12/3/92	DATE: Friday 12/4/92
1		Mobilization/Demobilization	Rig	3,000.00	3,000.00	1					
2		Standby Time	Hrs	4,800.00	120.00	40				1.5	1.0
3	D	Daily Personnel Prot. & Per Diem	Days	11,400.00	120.00	95	1	1	1	1	
4	C	Daily Personnel Prot. & Per Diem	Days	720.00	144.00	5					1
5		Decontamination between locations	Moves	7,050.00	150.00	47	2		1		1
6	D	Drilling\Samp. - On-landfill Borings 4.25 in.	Feet	0.00	17.50	0			34	4	16.00
7	C	Drilling\Samp. - On-landfill Borings 4.25 in.	Feet	1,800.00	20.00	90					16
8	B	Drilling\Samp. - On-landfill Borings 4.25 in.	Feet	0.00	24.00	0					
9		Sample Jars	Dozen	18.00	4.50	4					
10	D	Deep Glacial Borings\Samp. 4.25 inch	Feet	3,000.00	15.00	200					
11	C	Deep Glacial Borings\Samp. 4.25 inch	Feet	0.00	17.50	0					
12		Sample Jars	Dozen	22.50	4.50	5					
13	D	Deep Glacial Borings 4.25 inch	Feet	1,920.00	8.00	240					
14	C	Deep Glacial Borings 4.25 inch	Feet	0.00	10.50	0					
15	D	Shallow Glacial Borings 4.25 inch	Feet	2,776.00	8.00	347	69.5				
16	C	Shallow Glacial Borings 4.25 inch	Feet	0.00	10.50	0					
17	D	Borings\Samp. for 6 inch Casings 8.25 in.	Feet	6,360.00	26.50	240					
18	C	Borings\Samp. for 6 inch Casings 8.25 in.	Feet	0.00	29.00	0					
19		Sample Jars	Dozen	45.00	4.50	10					
20	D	Borings\No Samp. 8.25 inch	Feet	3,000.00	15.00	200					
21	C	Borings\No Samp. 8.25 inch	Feet	0.00	18.00	0					
22	D	Additional Samples 4.25 inch	Samples	1,125.00	25.00	45					
23	C	Additional Samples 4.25 inch	Samples	0.00	30.00	0					
24		Sample Jars	Dozen	18.00	4.50	4			2		
25	D	Shelby Tube Samples	Samples	1,200.00	60.00	20					
26	C	Shelby Tube Samples	Samples	0.00	75.00	0					
27	D	Bedrock Corings	Feet	3,400.00	20.00	170					
28	C	Bedrock Corings	Feet	0.00	27.00	0					
29		Wooden Core Boxes	Boxes	460.00	20.00	23					
30	D	Air Rotary Drilling - Ream	Feet	3,080.00	18.00	170					

DAILY PROGRESS WORKSHEET
Phase I

JOB #: 4011.00
LOCATION: Albion-Sheridan, MI
CONTRACTOR: R&R International

CODE	LEV	DESCRIPTION	UNIT	BID AMOUNT	UNIT PRICE	BID QTY.	WORK COMPLETED	WORK COMPLETED	WORK COMPLETED	WORK COMPLETED	WORK COMPLETED
							DATE: Monday 11/13/92	DATE: Tuesday 12/1/92	DATE: Wednesday 12/2/92	DATE: Thursday 12/3/92	DATE: Friday 12/4/92
31	C	Air Rotary Drillings - Ream	Feet	0.00	21.50	0					
32	D	Air Rotary Drillings - Drill	Feet	1,660.00	20.00	83					
33	C	Air Rotary Drillings - Drill	Feet	0.00	24.00	0					
34	D	Glacial Aquifer Temp. Well	Samples	1,200.00	150.00	8					
35	C	Glacial Aquifer Temp. Well	Samples	0.00	200.00	0					
36	D	Bedrock Aquifer Temp. Well	Samples	5,600.00	700.00	8					
37	C	Bedrock Aquifer Temp. Well	Samples	0.00	850.00	0					
38	D	Purging	Hours	1,920.00	120.00	16					
39	C	Purging	Hours	0.00	145.00	0					
40	D	Packer Testing	Hours	1,200.00	150.00	8					
41	C	Packer Testing	Hours	0.00	180.00	0					
42	D	Well Casing - Install 6" ID	Feet	6,734.00	14.00	481					
43	C	Well Casing - Install 6" ID	Feet	0.00	16.75	0					
44	D	Well Casing - Install 2" ID	Feet	11,536.00	8.00	1442	63'		10'		
45	C	Well Casing - Install 2" ID	Feet	0.00	9.75	0					25
46		Well Screen - Furnish 2"	Feet	108.00	3.00	36					
47	D	Well Screen 10' - Install	Screen	120.00	40.00	3			1		
48	C	Well Screen 10' - Install	Screen	0.00	48.00	0					1
49	D	Well Screen 5' - Install	Screen	660.00	20.00	33	2				
50	C	Well Screen 5' - Install	Screen	0.00	24.00	0					
51		Well Screen 3' - Furnish	Screen	60.00	15.00	4					
52	D	Sand Pack - Glacial/Leachate Wells	Feet	760.00	4.00	190	14'		12'		
53	C	Sand Pack - Glacial/Leachate Wells	Feet	0.00	4.75	0					12
54	D	Sand Pack - Bedrock Wells	Feet	289.50	3.50	77					
55	C	Sand Pack - Bedrock Wells	Feet	0.00	4.25	0					
56		Misc. Sand Pack - Furnish	Bags	15.00	7.50	2					
57	D	Bentonite/Cement Grout HSA	Feet	1,751.75	2.75	637	49.5'				
58	C	Bentonite/Cement Grout HSA	Feet	0.00	3.50	0					
59	D	Bentonite/Cement Grout Bedrock	Feet	1,472.50	2.50	589					
60	C	Bentonite/Cement Grout Bedrock	Feet	0.00	3.00	0					

DAILY PROGRESS WORKSHEET
Phase I

JOB #: 4011.00
LOCATION: Albion-Sheridan, MI
CONTRACTOR: R&R International

CODE	LEV	DESCRIPTION	UNIT	BID AMOUNT	UNIT PRICE	BID QTY.	WORK COMPLETED	WORK COMPLETED	WORK COMPLETED	WORK COMPLETED	WORK COMPLETED
							DATE: Monday 11/13/92	DATE: Tuesday 12/1/92	DATE: Wednesday 12/2/92	DATE: Thursday 12/3/92	DATE: Friday 12/4/92
61	D	Bentonite Seal - Install	Feet	1,190.00	17.00	70	4'		4'		
62	C	Bentonite Seal - Install	Feet	0.00	20.50	0					20'
63		Bentonite Pellets - Furnish	Feet	70.00	35.00	2					
64	D	Abandon wells/remove and grout	Feet	200.00	5.00	40					
65	C	Abandon wells/remove and grout	Feet	0.00	6.00	0					
66	D	Abandon borings and grout	Feet	300.00	6.00	50					
67	C	Abandon borings and grout	Feet	0.00	7.25	0					
68		Well Riser End Caps, Locks & Keys	Wells	1,200.00	30.00	40	2		1		1
69		Alum. Protective Casings - Install	Wells	14,000.00	350.00	40	2		1		1
70		Bumper Posts - Install	Posts	1,050.00	35.00	30					
71	D	Well Development	Hours	13,320.00	120.00	111	7	10.5	3	9	
72	C	Well Development	Hours	1,305.00	145.00	9					
73		55 Gallon steel drums	Drums	2,800.00	35	80					
CO74		Water Hauling for Fluid Rotary Drilling & Coring	Hours	0.00	65	0					
CO75		Water Tank use for Fluid Rotary Drilling & Coring	Day	0.00	50	0					
CO76		Mobilization of equipment	L.S.	0.00	500	0					
CO77		Installing/pulling temporary 4 inch casing	Hours	0.00	120	0					
CO78		Advance temporary 4 inch casing	Feet	0.00	29.50	0					
CO79		Wash rotary 3.875 inch bit (cleanout casing)	Hours	0.00	120.00	0					
\$125,676.25							WWES CC R&R JBM	WWES CC R&R JBM	WWES CC R&R JBM	WWES CC R&R JBM	WWES CC R&R JBM

INITIAL FOR APPROVAL

7/9/92

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELLS/SOIL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
Phase I.				
1. MOBILIZATION/DEMOBILIZATION				
Furnish drilling rig(s) capable of using hollow-stem augers and air rotary drilling and sampling to advance well borings through the unconsolidated sediments and sedimentary bedrock formations; supply trucks, drill crews, and all necessary equipment for drilling, sampling, well development, decontamination (water truck, steam cleaner, brushes, buckets, soap, water, etc.) and well completion; includes cleanup prior to site departure.	Lump Sum	1	\$_____	\$_____
2. STANDBY TIME				
For 1 crew as directed by the PRIME CONTRACTOR	Per Crew-hour	40 hour	\$_____	\$_____
3. DAILY PERSONNEL PROTECTION & PER DIEM				
Furnish personal health and safety equipment and personal decontamination equipment for drill crew and decontaminate personnel. Provide food and lodging for personnel.				

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
LEVEL D	Per Crew-day	95 days	\$_____	\$_____
LEVEL C	Per Crew-day	5 days	\$_____	\$_____
4. DRILL RIG AND EQUIPMENT DECONTAMINATION BETWEEN LOCATIONS	Per Move Between Locations	47 moves	\$_____	\$_____
5. HOLLOW-STEM AUGER DRILLING AND SAMPLING				
5A. LANDFILL BORINGS (LF-1, LF-2, and LF-3)				
a) Hollow-stem auger drilling (4.25-inch ID) with continuous split-spoon sampling using a 3-inch ID x 2-foot long sampler to the bottom of the borehole.				
LEVEL D (unit price information only)	Per Foot		\$_____	
LEVEL C	Per Foot	90 Feet	\$_____	\$_____
LEVEL B (unit price information only)	Per Foot		\$_____	
b) Sample Jars - Provide clean sample jars and lids for samples collected.	Per Dozen	4 Dozen	\$_____	\$_____

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
5B. DEEP GLACIAL DEPOSIT WELL BORINGS				
a) Hollow-stem auger drilling (4.25-inch ID) to provide borehole to set a deep glacial well at 5 locations; split-spooning at 2.5 feet intervals to 10 feet, every 5 feet thereafter.				
LEVEL D	Per Foot	200 Feet	\$_____	\$_____
LEVEL C (unit price information only)	Per Foot		\$_____	
b) Sample Jars - Provide clean sample jars and lids for samples collected.	Per Dozen	5 Dozen	\$_____	\$_____
c) Hollow-stem auger drilling (5.25-inch ID) to provide borehole to set a deep glacial well at 6 locations; no sampling required.				
LEVEL D	Per Foot	240 Feet	\$_____	\$_____
LEVEL C (unit price information only)	Per Foot		\$_____	
5C. 11 SHALLOW GLACIAL DEPOSIT WELL BORINGS				
Hollow-stem augering (4.25-inch ID) No sampling required.				
LEVEL D	Per Foot	347 Feet	\$_____	\$_____
LEVEL C (Unit Price information only)	Per Foot		\$_____	

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
5D. BORINGS FOR 6-INCH CASING				
a) Hollow-stem augering (8.25-inch ID) 2 feet into the top of bedrock at 6 locations. Continuous 3-inch x 2-foot split-spoon sampling to the bedrock.				
LEVEL D	Per Foot	240 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	
b) Sample Jars - provide clean sample jars and lids for samples collected.	Per Dozen	10 Dozen	\$ _____	\$ _____
c) Hollow-stem augering (8.25-inch ID) 2 feet into the top of bedrock at 5 locations. No sampling required.				
LEVEL D	Per Foot	200 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	
5E. ADDITIONAL SAMPLES				
a) Collect soil samples using 3-inch ID x 2-foot long split-spoon samplers. Collect through 4.25 ID hollow-stem augers in boreholes drilled for well installation as directed by PRIME CONTRACTOR.				

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
LEVEL D	Per Sample	45 Samples	\$_____	\$_____
LEVEL C (unit price information only)	Per Sample		\$_____	
b) Sample Jars - provide clean sample jars and lids for samples collected.	Per Dozen	4 Dozen	\$_____	\$_____
5F. SHELBY TUBE SAMPLES				
Collect Thin-Walled (Shelby tube) samples using a 3-inch diameter, 3-foot long. Seal and label the tube in accordance with ASTM D1587.				
LEVEL D	Per Sample	20 Samples	\$_____	\$_____
LEVEL C (unit price information only)	Per Sample		\$_____	
6. BEDROCK DRILLING AND SAMPLING				
6A. BEDROCK CORING				
a) NX coring, continuous from the top of bedrock to the bottom of the borehole using a split inner core barrel.				
LEVEL D	Per Foot	170 Feet	\$_____	\$_____
LEVEL C (unit price information only)	Per Foot		\$_____	
b) Wooden Core Boxes - provide new, hinged wooden core boxes to contain bedrock cores.	Per Box	23 Boxes	\$_____	\$_____

UNIT PRICE AND LUMP SUM BID FORM

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<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
6B. AIR ROTARY DRILLING				
a) Air Rotary Bedrock Drilling - Ream bedrock corehole with 4 7/8-inch tri-cone roller bit.				
LEVEL D	Per Foot	170 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	
b) Air Rotary Bedrock Drilling Drill borehole in bedrock with 4 7/8-inch tri-cone roller bit. No sampling required.				
LEVEL D	Per Foot	83 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	
7. VERTICAL GROUND WATER SAMPLING				
7A. GLACIAL AQUIFER Provide and install temporary well of 2-inch diameter PVC casing with a 5-foot long screen to collect a ground water sample from below the 4.25-inch ID hollow-stem augers. One well will be dedicated to each borehole (2 boreholes).				
LEVEL D	Per Sample	8 Samples	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Sample		\$ _____	

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
7B. BEDROCK AQUIFER Provide and install temporary well of 2-inch diameter PVC casing with a 5-foot long screen to collect ground water samples from the bedrock corehole using a packer to isolate the screened interval. One well will be dedicated to the corehole (1 corehole).				
LEVEL D	Per Sample	8 Samples	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Sample		\$ _____	
7C. PURGING Develop temporary well prior to sample collection. Collect purge water and transport to support area.				
LEVEL D	Per Hour	16 Hours	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Hour		\$ _____	
8. PACKER TESTING Provide packer assembly, set up, and test the conductivity of the bedrock according to test designation E-18 as provided.				
LEVEL D	Per Hour	8 Hours	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Hour		\$ _____	

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
9. WELL CASING				
9A. 6-INCH ID CASING Furnish and install 6-inch diameter Schedule 80 PVC, flush joint surface casing for bedrock wells. Install through 8.25-inch hollow-stem augers with neoprene K-packer at base.				
LEVEL D	Per Foot	481 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	
9B. 2-INCH ID CASING a) Furnish and install 2-inch ID, Schedule 40 PVC, flush joint casing.				
LEVEL D	Per Foot	1,442 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	
b) Furnish 2-inch diameter, Schedule 40 PVC flush joint casing for 4 wells installed by PRIME CONTRACTOR (material only).				
	Per Foot	36 Feet	\$ _____	\$ _____

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
10. WELL SCREEN				
10A. 10-FOOT LONG Furnish and install 10-foot long, 2-inch ID continuous 0.010 slot, flush joint, Schedule 40 PVC screen through 4.25-inch hollow-stem augers.				
LEVEL D	Per Screen	3 Screens	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Screen		\$ _____	
10B. 5-FOOT LONG Furnish and install 5-foot long, 2-inch ID, continuous 0.010-inch slot, flush joint, Schedule 40 PVC screens.				
LEVEL D	Per Screen	33 Screens	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Screen		\$ _____	
10C. 3-FOOT LONG Furnish 3-foot long, 2-inch ID Schedule 40 PVC screen for hand augered borehole (material only)	Per Screen	4 Screens	\$ _____	\$ _____

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
11. SAND PACK				
a) Glacial and Leachate Wells - Furnish and install sand pack for annular space around well screens through hollow-stem augers.				
LEVEL D	Per Foot	190 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	
b) Bedrock Wells - Furnish and install sand pack for annular space around well screens in bedrock boreholes.				
LEVEL D	Per Foot	77 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	
c) Miscellaneous - Furnish sand pack materials for 4 wells installed by PRIME CONTRACTOR (materials only).				
	Per Bag	2 Bags	\$ _____	\$ _____
12. CEMENT/BENTONITE GROUT				
12A. CEMENT/BENTONITE GROUT				
a) Furnish and install cement/bentonite grout in annular space for wells through hollow-stem augers.				

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
LEVEL D	Per Foot	637 Feet	\$_____	\$_____
LEVEL C (Unit Price information only)	Per Foot		\$_____	
b) Furnish and install cement/bentonite grout in annular space for bedrock wells.				
LEVEL D	Per Foot	589 Feet	\$_____	\$_____
LEVEL C (Unit Price information only)	Per Foot		\$_____	
12B. BENTONITE SEAL				
a) Furnish and install 2-foot bentonite pellet seal during well installation.				
LEVEL D	Per Foot	70 Feet	\$_____	\$_____
LEVEL C (Unit Price information only)	Per Foot		\$_____	
b) Furnish bentonite pellets for each of 4 wells installed by the PRIME CONTRACTOR (material only).	Per Bucket	2 Buckets	\$_____	\$_____

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
12C. ABANDONMENT				
a) Wells - Remove all above ground well materials and tremie. Grout the borehole with cement/bentonite grout from bottom to top.				
LEVEL D	Per Foot	40 Feet	\$_____	\$_____
LEVEL C (unit price information only)	Per Foot		\$_____	
b) Borings - grout borehole with cement/bentonite grout from bottom to top through tremie pipe.				
LEVEL D	Per Foot	50 Feet	\$_____	\$_____
LEVEL C (unit price information only)	Per Foot		\$_____	
13. WELL COMPLETION				
13A. WELL RISER END CAPS, LOCKS, AND KEYS	Per Well	40 Wells	\$_____	\$_____
13B. PROTECTIVE CASINGS				
Furnish and install hinged, anodized, aluminum protective casing, with locking cap. Installation includes securing protective casing in cement (including cement).				
	Per Well	40 Wells	\$_____	\$_____

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
13C. BUMPER POSTS Furnish and install concrete filled bumper posts 4 inches in diameter which extend 3 feet above ground surface and 3.5 feet below ground surface as directed by the PRIME CONTRACTOR to protect monitoring wells.	Per Post	30 Posts	\$ _____	\$ _____
14. WELL DEVELOPMENT Development of installed permanent wells. Capture and contain purge water. Transport drums of purge water to support area.				
LEVEL D	Per Hour	111 Hours	\$ _____	\$ _____
LEVEL C	Per Hour	9 Hours	\$ _____	\$ _____
15. DRUMS Provide 55-gallon steel drums approved by the U.S. Department of Transportation to store soil cuttings and development water.	Per Drum	80 Drums	\$ _____	\$ _____
16. ESTIMATE OF TIME REQUIRED FOR PHASE I MONITORING WELL/SOIL BORING INSTALLATIONS		_____ work days		
			SUBTOTAL PHASE I	\$ _____

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
Phase II				
17. MOBILIZATION/DEMOBILIZATION				
Furnish drilling rig(s) capable of using hollow-stem augers and air rotary drilling and sampling to advance well borings through the unconsolidated sediments and sedimentary bedrock formations; supply trucks, drill crews, and all necessary equipment for drilling, well development, decontamination (water truck, steam cleaner, brushes, buckets, soap, water, etc.) and well completion; includes cleanup prior to site departure.	Lump Sum	1	\$_____	\$_____
18. STANDBY TIME				
For 1 crew as directed by the PRIME CONTRACTOR	Per Crew-hour	12 Hours	\$_____	\$_____
19. DAILY PERSONNEL PROTECTION & PER DIEM				
Furnish personal health and safety equipment and personal decontamination equipment for drill crew and decontaminate personnel. Provide food and lodging for personnel.				

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
LEVEL D	Per Crew-day	45 days	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Crew-day		\$ _____	
20. DRILL RIG AND EQUIPMENT DECONTAMINATION BETWEEN LOCATIONS	Per Move Between Locations	20 moves	\$ _____	\$ _____
21. HOLLOW-STEM AUGER DRILLING				
21A. 5 DEEP GLACIAL DEPOSIT WELL BORINGS Hollow-stem auger drilling, (4.25-inch ID), no sampling required.				
LEVEL D	Per Foot	200 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	
21B. BORINGS FOR 6-INCH CASING a) Hollow-stem augering (8.25-inch ID) 2 feet into the top of bedrock at 7 locations. No sampling required.				
LEVEL D	Per Foot	280 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
21C. ADDITIONAL SAMPLES				
a) Collect soil samples using 3-inch ID x 2-foot long split-spoon samplers. Collect through 4.25 ID hollow-stem augers in boreholes drilled for well installation as directed by PRIME CONTRACTOR.				
LEVEL D (unit price information only)	Per Sample		\$ _____	
LEVEL C (unit price information only)	Per Sample		\$ _____	
b) Sample Jars - provide clean sample jars and lids for samples collected. (unit price information only)	Per Dozen		\$ _____	
22. BEDROCK AIR ROTARY DRILLING				
a) Air Rotary Bedrock Drilling - Drill borehole in bedrock with 4 7/8-inch tri-cone roller bit. No sampling required.				
LEVEL D	Per Foot	245 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
23. WELL CASING				
23A. 6-INCH ID CASING Furnish and install 6-inch diameter Schedule 80 PVC, flush joint surface casing for bedrock wells. Install through 8.25-inch hollow-stem augers with neoprene K-packer at base.				
LEVEL D	Per Foot	280 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	
23B. 2-INCH ID CASING a) Furnish and install 2-inch ID, Schedule 40 PVC, flush joint casing.				
LEVEL D	Per Foot	689 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	
24. WELL SCREEN				
24A. 5-FOOT LONG Furnish and install 5-foot long, 2-inch ID, continuous 0.010-inch slot, flush joint, Schedule 40 PVC screens.				

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
LEVEL D	Per Screen	12 Screens	\$_____	\$_____
LEVEL C (unit price information only)	Per Screen		\$_____	
25. SAND PACK				
a) Glacial Wells - Furnish and install sand pack for annular space around well screens through hollow-stem augers.				
LEVEL D	Per Foot	35 Feet	\$_____	\$_____
LEVEL C (unit price information only)	Per Foot		\$_____	
b) Bedrock Wells - Furnish and install sand pack for annular space around well screens in bedrock boreholes.				
LEVEL D	Per Foot	49 Feet	\$_____	\$_____
LEVEL C (unit price information only)	Per Foot		\$_____	
26. CEMENT/BENTONITE GROUT				
26A. CEMENT/BENTONITE GROUT				
a) Furnish and install cement/bentonite grout in annular space for wells through hollow-stem augers.				

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
LEVEL D	Per Foot	155 Feet	\$ _____	\$ _____
LEVEL C (Unit Price information only)	Per Foot		\$ _____	
b) Furnish and install cement/bentonite grout in annular space for bedrock wells.				
LEVEL D	Per Foot	462 Feet	\$ _____	\$ _____
LEVEL C (Unit Price information only)	Per Foot		\$ _____	
26B. BENTONITE SEAL Furnish and install 2-foot bentonite pellet seal during well installation.				
LEVEL D	Per Foot	24 Feet	\$ _____	\$ _____
LEVEL C (Unit Price information only)	Per Foot		\$ _____	
26C. ABANDONMENT a) Wells - Remove all above ground well materials and tremie. Grout the borehole with cement/bentonite grout from bottom to top.				
LEVEL D	Per Foot	40 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
b) Borings - grout borehole with cement/bentonite grout from bottom to top through tremie pipe.				
LEVEL D	Per Foot	50 Feet	\$ _____	\$ _____
LEVEL C (unit price information only)	Per Foot		\$ _____	
27. WELL COMPLETION				
27A. WELL RISER END CAPS, LOCKS, AND KEYS	Per Well	12 Wells	\$ _____	\$ _____
27B. PROTECTIVE CASINGS Furnish and install hinged, anodized, aluminum protective casing, with locking cap. Installation includes securing protective casing in cement (including cement).	Per Well	12 Wells	\$ _____	\$ _____
27C. BUMPER POSTS Furnish and install concrete filled bumper posts 4 inches in diameter which extend 3 feet above ground surface and 3.5 feet below ground surface as directed by the PRIME CONTRACTOR to protect monitoring wells.	Per Post	10 Posts	\$ _____	\$ _____

UNIT PRICE AND LUMP SUM BID FORM

UNIT PRICE AND LUMP SUM BID FOR INSTALLATION OF MONITORING WELL BORINGS ALBION-SHERIDAN TOWNSHIP LANDFILL SITE

<u>ITEM</u>	<u>REQUIRED METHOD OF PAYMENT</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>EXTENDED TOTAL AMOUNT</u>
28. WELL DEVELOPMENT Development of installed permanent wells. Capture and contain purge water. Transport drums of purge water to support area.				
LEVEL D	Per Hour	36 Hours	\$_____	\$_____
LEVEL C (unit price information only)	Per Hour		\$_____	
29. DRUMS Provide 55-gallon steel drums approved by the U.S. Department of Transportation to store soil cuttings and development water.				
	Per Drum	20 Drums	\$_____	\$_____
30. ESTIMATE OF TIME REQUIRED FOR PHASE II MONITORING WELL/SOIL BORING INSTALLATIONS		_____ work days		

SUBTOTAL PHASE II \$_____

SUM OF EXTENDED TOTALS \$_____

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BID PRICE THAT IS
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